

# **INCREASING THE IMPACT OF SUSTAINABILITY DISCLOSURE: THE CASE OF THE WORLD ECONOMIC FORUM METRICS**

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**11/08/2021**

**ABSTRACT**

The drive to encourage transparency in corporate performance over the last two decades has resulted in the development of more than a dozen different frameworks for corporate sustainability reporting. Despite numerous potential avenues for an organization to report sustainability performance, there is little guidance available to evaluate the usefulness of a given metric or indicator to help stakeholders learn about a firm's sustainability and guide the firm to improve its sustainability performance. In this paper, we propose a new framework for assessing environmental, social and governance ("ESG") metrics and improving their utility by evaluating whether metrics are Important, Measurable, Precise, Accountable, Contextualized, and Time-bound (IMPACT). We apply the IMPACT framework to the World Economic Forum's ("WEF") 2020 proposed stakeholder capitalism metrics that are aimed at facilitating standardization by incorporating metrics the WEF declares organizations already use. To understand the utility of the WEF metrics, we assessed whether, to what extent, and how the top 200 companies on the Fortune 500 list (i.e., Fortune 200) reported the information responsive to the WEF metrics. We evaluated information that the company had publicly disclosed on its sustainability report, to the Carbon Disclosure Project, or in public filings with the SEC for the most recent year available for the sustainability report (i.e., 2020 or before). Our analysis of the Fortune 200's sustainability reporting reveals disclosures corresponding to less than half of the WEF's proposed metrics and low comparability among corporate disclosures aligned with the WEF's chosen metrics. Applying the IMPACT framework to the WEF metrics demonstrates areas for improvement that may increase standardization and utility of the resulting disclosures. Further, we argue that organizations can use the IMPACT framework to assess any proposed set of ESG metrics under consideration to ensure that metrics seek information that will be valuable for the companies and their stakeholders.

Keywords: Corporate Sustainability, ESG, Corporate Disclosure, Sustainability Metrics, Social Impact, World Economic Forum, Stakeholder Capitalism.

Acknowledgment. We thank Corey Christensen, Eustina Kim, Amy Stanfield, Kevin Truong and Grace Lachman for their research assistance with this project.

## I. INTRODUCTION

There are a bewildering number of options facing managers seeking to create or improve their corporate sustainability disclosures, but little accompanying information that can help them pick the most useful or effective metrics (Barker et al., 2020).<sup>1</sup> “[C]ompanies’ sustainability disclosures needn’t conform to shared standards in the way their financial disclosures must. Years of effort by standard-setting groups have produced nearly a dozen major reporting frameworks and standards, which businesses have discretion to apply as they see fit.”<sup>2</sup> This fragmentation is compounded by the existence of many sustainability frameworks that collect indicators or metrics in an effort to provide a comprehensive view of sustainability performance. However, adoption of these frameworks remains voluntary. Without guidance about *how* and *what* to disclose, corporate sustainability managers are left to fend for themselves, and the result is an undermining of a primary goal of corporate sustainability disclosures: communicating usable information to stakeholders about the company’s sustainability performance that will allow stakeholders to make informed decisions regarding investment choices (Garcia-Torea et al., 2019; Bernow, 2019).<sup>3,4</sup> “[C]urrent [] reporting practices do not allow effective communication yet [] because they tend to lack completeness, neutrality, relevance, and credibility” (Garcia-Torea et al., 2019, p. 952).<sup>5</sup>

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<sup>1</sup> Barker, R., Eccles, Robert G., Serafeim, G. (2020). The Future of ESG Is . . . Accounting? *Harvard Business Review*. <https://hbr.org/2020/12/the-future-of-esg-is-accounting>

<sup>2</sup> Bernow, S., Godsall, J., Klempner, B., Merten, C. (2019). More than values: The value-based sustainability reporting that investors want. *McKinsey Sustainability*. <https://www.mckinsey.com/business-functions/sustainability/our-insights/more-than-values-the-value-based-sustainability-reporting-that-investors-want>

<sup>3</sup> Garcia-Torea, N., Fernandez-Feijoo, B., De La Cuesta, M. (2020). CSR reporting communication: Defective reporting models or misapplication?. *Corporate Social Responsibility and Environmental Management*, 27(2), 952-968. DOI: 10.1002/csr.1858.

<sup>4</sup> Bernow, S., Godsall, J., Klempner, B., Merten, C. (2019). More than values: The value-based sustainability reporting that investors want. *McKinsey Sustainability*. <https://www.mckinsey.com/business-functions/sustainability/our-insights/more-than-values-the-value-based-sustainability-reporting-that-investors-want>

<sup>5</sup> Garcia-Torea, N., Fernandez-Feijoo, B., De La Cuesta, M. (2020). CSR reporting communication: Defective reporting models or misapplication?. *Corporate Social*

This multiplicity of reporting avenues can lead to confusion. Should an organization fully report according to an existing framework, or should it use portions of different frameworks to create something that may be more relevant for the specific organization? Recognizing this pitfall, in the fall of 2020, the World Economic Forum (WEF) proposed a set of metrics aimed at distilling the best of existing standards into a set of universal reporting metrics. The WEF touted the practicality of their approach claiming that it incorporated metrics on which organizations were frequently already reporting.

To understand the utility of the WEF metrics, we assessed whether, to what extent, and how the top 200 companies on the Fortune 500 list reported the information responsive to the WEF metrics. We evaluated information that the company had publicly disclosed in its sustainability report, to the Carbon Disclosure Project, or in public filings with the SEC for a single year, for the most recent year of the sustainability report (i.e., 2020 or before).<sup>6</sup> Our analysis of current reporting demonstrates that in general, companies are reporting less than half of the data requested by the WEF metrics. Moreover, our analysis reveals a number of global issues with the WEF metrics themselves that may hinder their usefulness to companies and stakeholders. Even when companies disclosed information responsive to the same WEF metric, the disclosures frequently were vague, without context and sometimes untethered to goals, and lacked comparability and standardization.

In response, we developed the IMPACT evaluation framework to ensure that the ESG metrics chosen by organizations setting corporate sustainability disclosure standards or by managers seeking to customize their company's reporting result in meaningful disclosures that are useful to stakeholders. Drawing from the literature describing criteria of good indicators coupled

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Responsibility and Environmental Management, 27(2), 952-968. DOI: 10.1002/csr.1858

<sup>6</sup> At the time of data collection, for four companies, the most recent sustainability report dated to 2018.

with the specific need of businesses to understand performance and set goals and their stakeholders to assess performance, we propose that for a sustainability metric to have IMPACT, it must be Important, Measurable, Precise, Accountable, Contextualized, and Time-bound. Applying the IMPACT framework to the WEF metrics reveals areas for improvement that can ease the reporting burden on organizations and ensure that those choosing to report on the WEF metrics produce meaningful responses that are useful to them and their stakeholders. Although there is a wealth of disclosure regarding sustainability performance of companies, as it is currently presented, “investors say they cannot readily use companies’ sustainability disclosures to inform investment decisions and advice accurately.”<sup>7</sup> While part of this is due to the multiplicity of reporting frameworks,<sup>8</sup> as can be seen in our analysis, there can be a lack of standardization of disclosures even within a single framework. Aligning reporting metrics with IMPACT can, among other things, increase standardization among disclosures, thereby providing greater insight into organizational performance and comparability of disclosures among companies. Further, the IMPACT framework ensures that metrics chosen for use by organizations are useful not only for evaluating current performance, but also for setting goals or measuring progress toward established goals. And while we apply the IMPACT framework to the WEF set of metrics specifically here, IMPACT can be applied to any proposed sustainability metric to maximize its usefulness to organizations and stakeholders.

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<sup>7</sup> Bernow, S., Godsall, J., Klempner, B., Merten, C. (2019). More than values: The value-based sustainability reporting that investors want. McKinsey Sustainability. <https://www.mckinsey.com/business-functions/sustainability/our-insights/more-than-values-the-value-based-sustainability-reporting-that-investors-want>

<sup>8</sup> Bernow, S., Godsall, J., Klempner, B., Merten, C. (2019). More than values: The value-based sustainability reporting that investors want. McKinsey Sustainability. <https://www.mckinsey.com/business-functions/sustainability/our-insights/more-than-values-the-value-based-sustainability-reporting-that-investors-want>

## II. BACKGROUND

### A. The Rise in Voluntary ESG Reporting

Interest in socially responsible investing (considering an organization's environmental, social, and governance ("ESG") or sustainability practices and performance in investment decisions) has grown significantly, reaching \$17 trillion of professionally managed assets as of the end of 2019 (SIF, 2020).<sup>9</sup> Bloomberg currently predicts that by 2025, ESG assets will comprise approximately \$53 trillion dollars, or one third of global assets under management (Bloomberg, 2021). Accompanying this trend has been an increase in the number of organizations engaging with the concept of sustainability and preparing periodic sustainability reports detailing various aspects of an organization's ESG performance (Amel-Zadeh & Serafeim, 2018).<sup>10</sup> However, in practice, these disclosures have not proven entirely effective in conveying useful information to stakeholders (Garcia-Torea et al., 2020).<sup>11</sup>

How disclosures are available to interested stakeholders varies. First, companies may issue their own sustainability reports incorporating an individualized assortment of relevant sustainability topics and metrics. Second, companies may report data to third-party organizations that may make the data publicly available. Third, companies may report data to private ratings organizations that generally do not publicize the reported data, but instead provide a rating of the company in the aggregate or across the E, S, and G topics (Berg et al., 2020).<sup>12</sup> Fourth, certain disclosures from

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<sup>9</sup> SIF, U. (2020). Report on US sustainable, responsible and impact investing trends. *The US SIF Foundation*. <https://www.ussif.org/files/US%20SIF%20Trends%20Report%202020%20Executive%20Summary.pdf>

<sup>10</sup> Amel-Zadeh, A. & Serafeim, G. (2018) Why and How Investors Use ESG Information: Evidence from a Global Survey. *Financial Analysts Journal*, 74(3), 87-103. DOI: 10.2469/faj.v74.n3.2

<sup>11</sup> Garcia-Torea, N., Fernandez-Feijoo, B., De La Cuesta, M. (2020). CSR reporting communication: Defective reporting models or misapplication?. *Corporate Social Responsibility and Environmental Management*, 27(2), 952-968. DOI: 10.1002/csr.1858.

<sup>12</sup> Berg, F., Kobel, J., Rigobon, R. (2020) Aggregate Confusion: The Divergence of ESG Ratings. Available at SSRN: <https://ssrn.com/abstract=3438533> or

companies may be legally mandated, for example, the Dodd-Frank Act requires regulated organizations to report the ratio of the CEO's total compensation to the median employee's compensation in proxy statements.<sup>13</sup> Each of these reporting paths emphasizes different dimensions of sustainability practices.

In practice, these multiple avenues for disclosure raise issues of commensurability, information overload, and confusion (Delmas et al., 2013).<sup>14</sup> First, it is often difficult for investors to use this information for the purpose of comparing sustainability performance across companies (Amel-Zadeh & Serafeim, 2018).<sup>15</sup> Without clear standardization of categories of reporting or responses, comparing performance is challenging. Moreover, even when firms are responding to an established framework, the sheer volume of information that may be reported could prove a barrier to an investor seeking to compare among companies. This might also lead to confusion among corporate managers on how to prioritize their investments in environmental and social improvements to bolster their firms' reputation with investors (Delmas & Blass, 2010).<sup>16</sup>

## **B. ESG Reporting Accomplished Through Use of Indicators**

The lack of clarity is further compounded by sustainability's reliance on aggregated indicators that combine different measures and are often presented with limited or no information about the derivation and interpretation of constituent measures. Fundamentally, sustainability or ESG information is presented through company disclosures focused on

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<http://dx.doi.org/10.2139/ssrn.3438533>

<sup>13</sup> Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, § 953, 124 Stat. 1376, 1903-04 (2010) (codified at 15 U.S.C. § 78n).

<sup>14</sup> Delmas, M. A., Etzion, D., & Nairn-Birch, N. (2013). Triangulating environmental performance: What do corporate social responsibility ratings really capture?. *Academy of Management Perspectives*, 27(3), 255-267.

<sup>15</sup> Amel-Zadeh, A. & Serafeim, G. (2018) Why and How Investors Use ESG Information: Evidence from a Global Survey. *Financial Analysts Journal*, 74(3), 87-103. DOI: 10.2469/faj.v74.n3.2

<sup>16</sup> Delmas, M., & Blass, V. D. (2010). Measuring corporate environmental performance: the trade-offs of sustainability ratings. *Business Strategy and the Environment*, 19(4), 245-260.

relevant thematic areas using specific indicators to approximate their performance (Rahdari & Rostamy, 2015).<sup>17</sup> An indicator can be defined as a variable that can provide information about a system of interest (Wu & Wu, 2012).<sup>18</sup> As described by Meadows, “indicators arise from values (we measure what we care about), and they create values (we care about what we measure)” (Meadows, 1998, p. 2).<sup>19</sup> Because the choices of which indicators to use and how to aggregate them are grounded in specific values, those choices may affect the ultimate conclusions drawn regarding an organization’s sustainability performance. For example, there are numerous private rating agencies that produce a third-party ESG or sustainability score for companies. Frequently these agencies will arrive at different scores for the same company; however, since they generally do not disclose fully the methodology through which the scores were derived or why specific indicators were chosen, a stakeholder can gain little insight into why sustainability scores for the same company vary (Berg et al., 2020).<sup>20</sup> But what is clear is that the choice of indicators is important.

The importance of indicator selection has spawned various lists of qualities (discussed below) that a sustainability indicator should possess depending on the purpose for which the indicator is used. Generally, one hallmark of a sustainability indicator is the inclusion of a temporal aspect, a limit, or a target associated with the evaluated indicator (Wu & Wu, 2012).<sup>21</sup> Wu and Wu assert that individual indicators “should be indicative of the state and changes of the target aspects of sustainability; they should be informative,

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<sup>17</sup> Rahdari, A.H., & Rostamy, A.A.A. (2015) Designing a general set of sustainability indicators at the corporate level. *Journal of Cleaner Production*, 108, 757-771.

<sup>18</sup> Wu, J. & Wu, T. (2012). Sustainability Indicators and Indices: An Overview. In C.N. Madu & C. Kuei (Eds.) *Handbook of Sustainable Management* (pp. 65-86). Imperial College Press.

<sup>19</sup> Meadows, D. (1998, September). *Indicators and Information Systems for Sustainable Development: A Report to the Balaton Group*. The Donnell Meadows Project Academy for Systems Change.

<https://donellameadows.org/wp-content/userfiles/IndicatorsInformation.pdf>

<sup>20</sup> Berg, F., Kobel, J., Rigobon, R. (2020) Aggregate Confusion: The Divergence of ESG Ratings. Available at SSRN: <https://ssrn.com/abstract=3438533> or <http://dx.doi.org/10.2139/ssrn.3438533>

<sup>21</sup> Wu, J. & Wu, T. (2012). Sustainability Indicators and Indices: An Overview. In C.N. Madu & C. Kuei (Eds.) *Handbook of Sustainable Management* (pp. 65-86). Imperial College Press.



easy to compile from readily available data and lasting data sources, understandable to lay-people, policy relevant, [and] predictive or leading ...” (Wu & Wu, 2012, 72).<sup>22</sup> Lemke and Bastini (2020)<sup>23</sup> posit that indicators should comprehensively cover the three ESG dimensions, evaluate both efficiency and effectiveness measures, be target- and boundary-oriented, and should enable comparability and benchmarking. Rasmussen et al. (2017)<sup>24</sup> noted from their research surveying agencies and organizations using indicators that the following criteria emerged as important: indicators should be cost-effective, rely on existing data, and they should be comparable among areas of interest.

Beyond the firm level, various indicator qualities have been proposed at the national level to promote alignment with the United Nation’s Sustainable Development Goals: indicators should be simple, cover the whole spectrum of human activities while minimizing overlap, be quantifiable, be capable of being monitored, be sensitive enough to reflect important change, and be able to timely identify performance trends (Harger & Meyer, 1996).<sup>25</sup> Similarly, other desirable attributes of indicators are that they represent the process they attempt to characterize, are scientifically valid, relevant, transparent, measurable and reproducible, robust, broadly applicable, based on accessible data, limited in number, and sensitive to change

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<sup>22</sup> Wu, J. & Wu, T. (2012). Sustainability Indicators and Indices: An Overview. In C.N. Madu & C. Kuei (Eds.) *Handbook of Sustainable Management* (pp. 65-86). Imperial College Press.!

<sup>23</sup> Lemke, C. & Bastini, K. (2020). Embracing multiple perspectives of sustainable development in a composite measure: the Multilevel Sustainable Development Index. *Journal of Cleaner Production* 246. DOI: <https://doi.org/10.1016/j.jclepro.2019.118884>

<sup>24</sup> Rasmussen, L.V., Bierbaum, R., Oldekop, J.A., Agrawal, A. (2017). Bridging the practitioner-research divide: Indicators to track environmental, economic, and sociocultural sustainability of agricultural commodity production. *Global Environmental Change*, 42, 33-46. DOI: 10.1016/j.gloenvcha.2016.12.001

<sup>25</sup> Harger, J.R.E., Meyer, F.M., 1996, Definitions of indicators for environmentally sustainable development. *Chemosphere* 33 (9), 1749-1775.

(Spangenberg, 2015),<sup>26</sup> Further, indicators also should be clear, unambiguous, and reliable (Cirstea et al., 2018).<sup>27</sup>

Alongside academia, various intergovernmental organizations have also sought to develop benchmark criteria for indicators, often focusing on indicators of sustainable performance.

At the firm level, the Global Reporting Initiative (GRI) and SASB have developed criteria to include sustainability metrics. For example, SASB focuses on sustainability topics that are reasonably likely to have material impacts on the financial condition or operating performance of companies in an industry with metrics that satisfy the following requirements: (1) applicable to most companies, comparable within industry, (2) sufficiently complete to provide enough information to interpret performance, (3) verifiable, (4) aligned with reporting practices, (5) neutral or objective, (6) distributive to yield a discernable range of data for companies, and (7) understandable. Metrics are based on definitions, principles, and methodologies that are applicable to most companies in the industry based on their typical operating context.<sup>28</sup>

GRI provides Reporting Principles for defining report quality and Reporting Principles for defining report content Reporting Principles for defining report quality and.<sup>29</sup> The former focus on defining the substantive topics to be covered, and they center on Stakeholder Inclusiveness, Sustainability Context, Materiality, and Completeness. The latter consist of Accuracy, Balance, Clarity, Comparability, Reliability, and Timeliness. Accuracy seeks

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<sup>26</sup> Spangenberg, J. H. (2015). Indicators for Sustainable Development. In M. Redclift & D. Springett (Eds.), *Routledge International Handbook of Sustainable Development* (pp. 308-322). Routledge. DOI: 10.4324/9780203785300.ch20

<sup>27</sup> Cirstea, S. D., Moldovan-Teslios, C., Cirstea, A., Turcu, A.C., Darab, C. P. (2018). Evaluating Renewable Energy Sustainability by Composite Index. *Sustainability*, 10, 811-832. DOI: 10.3390/su10030811

<sup>28</sup> [https://www.sasb.org/wp-content/uploads/2020/02/SASB\\_Conceptual-Framework\\_WATERMARK.pdf](https://www.sasb.org/wp-content/uploads/2020/02/SASB_Conceptual-Framework_WATERMARK.pdf) and [https://www.sasb.org/wp-content/uploads/2021/07/PCP-package\\_vF.pdf](https://www.sasb.org/wp-content/uploads/2021/07/PCP-package_vF.pdf)

<sup>29</sup> GRI (2016). GRI 101: Foundation.

<https://www.globalreporting.org/standards/media/1036/gri-101-foundation-2016.pdf>

sufficiently detailed information; Balance requires that both positive and negative aspects of an organization's operations be presented in a sustainability report; Clarity necessitates that information be presented in an accessible manner for stakeholders; Comparability directs that information be presented so that stakeholders can compare that particular organization's performance over time; Reliability demands that the process of gathering information for a report be done so that it is capable of being examined and establishes the quality of the information; and Timeliness requires that sustainability reports be prepared on a regular schedule.

At the national level. The UN's Leadership Council of the Sustainable Development Solutions Network also set forth principles for global monitoring indicators, stating that indicators should (1) be limited in number and globally harmonized; (2) be simple, single-variable indicators with straightforward policy implications; (3) allow for high frequency monitoring; (4) be consensus based; (5) be constructed from well-established data sources; (6) be disaggregated; (7) be universal; (8) be mainly outcome (as opposed to input) focused; (9) be science-based and forward looking; and (10) be a proxy for broader issues or conditions (UN, 2015).<sup>30</sup> The UN's Department of Economic and Social Affairs recommends that indicators be (1) primarily national in scope, (2) relevant to assessing progress, (3) limited in number but adaptable, (4) broad in coverage of goals, (5) understandable, clear and unambiguous, (6) conceptually sound, (7) representative of international consensus, (8) within capabilities to develop, and (9) dependent on cost effective data of known quality (UN, 2007).<sup>31</sup> The Organization for Economic Co-operation and Development

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<sup>30</sup> UN Leadership Council of the Sustainable Development Solutions Network (2015). Indicators and a Monitoring Framework for the Sustainable Development Goals: Launching a data revolution for the SDGs. <https://sustainabledevelopment.un.org/content/documents/2013150612-FINAL-SDSN-Indicator-Report1.pdf>

<sup>31</sup> UN Department of Economic and Social Affairs (2007). Indicators of Sustainable Development: Guidelines and Methodologies. <https://www.un.org/esa/sustdev/natlinfo/indicators/guidelines.pdf>

(“OECD”) prescribes that indicators should exhibit relevance, analytical soundness, and measurability (OECD, 2003).<sup>32</sup> Similarly, the Financial Accounting Standard’s Board in the United States discusses what makes financial information useful, finding that “[i]f financial information is to be useful, it must be relevant and faithfully represent what it purports to represent. The usefulness of financial information is enhanced if it is comparable, verifiable, timely, and understandable.”<sup>33</sup>

However, as indicators are inherently tied to the purpose for which they are being used, the relevant criteria for identifying suitable indicators also vary with the purpose of their use. While many of the above criteria address indicators at national or international levels, there has been insufficient focus on the corporate organizational level. At the corporate organizational level, the focus has been primarily to develop metrics for impacts that are financially material to the firm, rather than to communicate performance on sustainability-related aspects of a business in a way that provides useful information to stakeholders. Therefore, there has been insufficient discussion regarding what criteria an indicator should possess to accomplish these goals. The indicator criteria should maximize the ability of an organization to collect and report the relevant data so that it can prove useful both (1) to the organization for the purpose of evaluating and adjusting its sustainability practices and targets and (2) to stakeholders seeking to understand the sustainability performance of an organization.

### **C. Indicators are Frequently Assembled into Reporting Frameworks**

Indicators are seldom used in isolation because they are generally narrowly focused; instead, they are frequently assembled into reporting frameworks to cover broader issues of sustainability. While there are numerous ESG

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<sup>32</sup> OECD (2003). OECD Environmental Indicators Development, Measurement and Use. <https://www.oecd.org/env/indicators-modelling-outlooks/24993546.pdf>

<sup>33</sup> Financial Accounting Standards Board (2010). Statement of Financial Accounting Concepts No. 8 (p. 16). <https://www.fasb.org/resources/ccurl/515/412/Concepts%20Statement%20No%208.pdf>

frameworks available a few have gained prominence, including the Sustainability Accounting Standards Board (“SASB”), the Global Reporting Initiative (“GRI”), and the Taskforce on Climate-related Financial Disclosures (“TCFD”).

In 2018, SASB published its set of sector-based indicators focused on reporting aspects of sustainability performance deemed financially material to investors (SASB, n.d.). The SASB standards cover 77 sectors and provide “the minimal set of financially material sustainability topics and their associated metrics for the typical company in an industry.” In contrast, GRI seeks to provide a comprehensive set of standards related to sustainability reporting (GRI, n.d.).<sup>34</sup> GRI provides multiple metrics covering 39 topical areas aimed at creating generally applicable disclosure metrics. TCFD takes a different approach, focusing entirely on climate-related issues and seeking insight into how an organization will address climate-change issues across four areas: governance, strategy, risk management, and metrics and targets (TCFD, n.d.).<sup>35</sup>

Entering into the field, in 2020, the International Business Council of the World Economic Forum sought to create a set of metrics that would (1) create consistency across companies, (2) utilize already “well established metrics and disclosures,” and (3) synergize existing reporting frameworks.<sup>36</sup> In part, this mission was aimed at remedying the fractured ESG reporting space that suffered from a lack of consistency and comparability in reporting that “hinder[ed] the ability of companies to meaningfully and credibly demonstrate the progress they are making on sustainability...”<sup>37</sup> Working with four largest accounting firms and Bank of America, the WEF released their set of Stakeholder Capitalism Metrics: a set of 21 core metrics and 34 expanded metrics categorized under four pillars: Principles

<sup>34</sup> GRI (n.d.). Welcome to GRI. <https://www.globalreporting.org/>

<sup>35</sup> Task Force on Climate-related Financial Disclosures. (n.d.). Climate change presents financial risk to the global economy. <https://www.fsb-tcf.org/>

<sup>36</sup> WEF IBC Metrics Discussion Paper Consultation Draft Jan 2020 at 6.

<sup>37</sup> *Id.*

of Governance, Planet, People, and Prosperity. The WEF's explicit goal is to "identify a set of universal, material, ESG metrics and recommended disclosures that could be reflected in the mainstream annual reports of companies on a consistent basis across industry sectors and countries. The metrics should be capable of verification and assurance, to enhance transparency and alignment among corporations, investors and all stakeholders" (WEF, 2020, p. 6).<sup>38</sup>

From a management perspective, there is little guidance to determine whether an organization should use any of these frameworks, portions of some of these frameworks, or craft a set of indicators from scratch for its own sustainability disclosures. This lack of clarity is compounded by the fact that indicators for the same substantive area can differ. For example, when focusing on workforce health and safety, SASB provides that a company in the agricultural industry should disclose total incident rate, fatality rate, and near miss frequency rate for direct employees and seasonal and migrant employees. In contrast, the WEF's proposed universal metrics would have a company disclose the number of fatalities, the number of high consequence work related injuries, recordable work-related injuries, main types of work-related injuries, and the number of hours worked.

### **III. IMPACT EVALUATION FRAMEWORK**

While to some extent the determination of what substantive areas to cover and what metrics or indicators to use will remain a value choice for organizations, we propose an IMPACT framework to assist in identifying useful indicators for organizations to use in their own sustainability goal setting and for stakeholders. Building on the idea of SMART goals, pioneered by Doran (1981), there should be a common set of characteristics that can be used to assess whether a proposed metric for sustainability is

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<sup>38</sup> WEF (2020). Stakeholder Capitalism Metrics.  
[http://www3.weforum.org/docs/WEF\\_IBC\\_Measuring\\_Stakeholder\\_Capitalism\\_Report\\_2020.pdf](http://www3.weforum.org/docs/WEF_IBC_Measuring_Stakeholder_Capitalism_Report_2020.pdf)

going to be useful to organizations and stakeholders. Doran (1981) proposed a framework to develop effective organizational goal-setting that focusses on goals that are specific, measurable, assignable, realistic and time-related (SMART). Similarly, we propose the IMPACT framework to evaluate whether a metric has the necessary characteristics that allow it to be appropriately applied by an organization and result in information that stakeholders can use to understand the organization's sustainability performance, compare performance across firms, and prioritize investment decisions. To have IMPACT, metrics should be Important, Measurable, Precise, Accountable, Contextualized, and Time-bound.

*Importance* specifies that metrics should request data that is integral to sustainability efforts. What qualifies as *Important* partly depends on the type of entity seeking to use the metric. At the global level, *Importance* is defined by use of and alignment with established broad standards. For example, for environmental issues, the topics addressed by the UN Sustainable Development Goals and Planetary Boundaries (Whiteman, 2013)<sup>39</sup> constitute *Important* topics. For an individual organization using the IMPACT framework to assess potential metrics, not all aspects of the global standards will be relevant to that organization's operations. Thus, at the organizational level, a metric satisfies the *Important* criteria if it aligns with established standards at the global level and provides insight into an aspect of that organization's operations that has significant impact in the Environmental, Social, or Governance arenas. It should be noted that here *Importance* goes beyond the financial materiality assessment, which focuses on the issues that are likely to impact the financial condition or operating performance of a company and therefore are most important to investors.<sup>40</sup>

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<sup>39</sup> Whiteman, G., Walker, B., Perego, P. (2013). Planetary Boundaries: Ecological Foundations for Corporate Sustainability. *Journal of Management Studies*, 50, 307-336. DOI: 10.1111/j.1467-6486.2012.01073.x

<sup>40</sup> <https://www.sasb.org/standards/materiality-map/#:~:text=Why%20is%20Financial%20Materiality%20important%3F&text=SASB%20identifies%20financially%20material%20issues,are%20most%20important%20to%20investors.>

Metrics should also be *Measurable*, meaning that there is a standard process to gather and evaluate the substantive information requested by the metric. Measurable metrics include definitions of any key terms and explicitly state the units for reporting the data. Measurable metrics also seek data that is commonly collected or utilized by an organization, or if seeking more obscure data, provides a clear process and specific guidance for collecting the data, including how to calculate and report on the metric. Ensuring information collected and reported according to a standard method can increase the organization's ability to use the data to inform goal setting and comparability of the resulting disclosures. Further, ensuring a metric is *Measurable* can facilitate the setting of quantitative goals or targets to be achieved.

To meet the *Precise* criteria, a metric should identify the single variable that provides information about the relevant aspect of company operation. If that aspect of company operation requires multiple variables to assess it, then, rather than requesting an organization report on each of the variables and leave it to stakeholders to determine how to use the multiple variables to evaluate the company's operation, a metric should provide and explain the procedure for how to create a composite indicator that weights and aggregates the individual variables into a single variable. The metric should then seek the reporting of the composite indicator.

*Accountable* metrics are those that include information regarding whether the information reported has been verified by a third-party or requests other indicia of reliability that provide stakeholders with confidence that the reported data is accurate.

A proposed metric should also provide *Contextualization* that frames the requested data in a way a stakeholder can understand and in relation to the target goal or level to be achieved.<sup>41</sup> While disclosure of a target or goal

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<sup>41</sup> Wu, J. & Wu, T. (2012). Sustainability Indicators and Indices: An Overview. In C.N. Madu & C. Kuei (Eds.) *Handbook of Sustainable Management* (pp. 65-86). Imperial College Press.



provides information about the substantive progress of an organization, it also provides insight to stakeholders regarding the dedication of the organization to improving performance on that metric. A metric should provide the current disclosure on the metric alongside the prior year's or years' responses to assist a stakeholder in discerning changes in the organizations performance or other indications that assist a reader in understanding the magnitude of the effect of the organization's operations on the environment and society. Similarly, where helpful, metrics should provide some normalization to allow performance to be judged on a uniform scale. For example, metrics can seek information disclosures in the form of ratios or percentages.

Finally, metrics should be *Time-Bound* and specify the time frame for which data is reported and identify timelines for achieving future goals or target levels. Further, in the event that prior targets will not be met on the original timeline, modifications should be explicitly stated.

Table 1, below summarize the main elements of the IMPACT framework.

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[Insert Table 1. About Here]

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While the IMPACT framework draws on the existing literature regarding characteristics for indicator selection, the choice of criteria is unique in its focus on maximizing utility for organizations and their stakeholders and is driven by the deficits identified in the current reporting on the WEF metrics. While at first glance GRI and SASB appear to closely align with the IMPACT framework, each takes a different focus. For example, where *Measurability* seeks to ensure that for a given metric a uniform standard of measurement is outlined to ensure that multiple firms measuring that metric would report data in a way to allow comparisons between firms. In contrast, GRI's Comparability principally focuses on comparing

performance of a single organization over time, and while they reference that the principle could support comparisons between firms, that is not their focus.<sup>42</sup> Similarly, IMPACT emphasizes the necessity of connecting sustainability metrics with goals.

#### **IV. METHODS**

We apply our IMPACT evaluation framework to assess whether the WEF metrics meet their goal of creating a sustainability disclosure framework that would drive progress towards effective universal reporting standards. Our analysis is organized around the IMPACT principles and based on data collected on the public sustainability disclosures of the top 200 public organizations on the 2020 Fortune 500 list. We evaluate the current level of disclosure on each of these metrics by gathering publicly disclosed information from each company found on its website, in its sustainability report, in third-party disclosures, or in public filings with the SEC for a single year, either 2018, 2019, or 2020, choosing the year in which the most recent corporate sustainability report was published. We chose to collect data on the firms from the Fortune 200 list because these are the largest firms in the United States and therefore the most likely to have the resources to respond to requests for ESG information from stakeholders and to disclose this information publicly. We focus on the 21-core metrics chosen by WEF, each of which consists of multiple subparts (see list in Appendix A). We then apply our IMPACT framework to evaluate the set of metrics developed by WEF.

First, to simplify our evaluation regarding compliance, each of the core metrics were broken down into their sub-parts for assessment, amounting to a total of 74 metrics for evaluation (See list in Appendix A). This approach was taken to clearly define the data collection process and to allow for the identification of specific aspects of the core metrics that may

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<sup>42</sup> GRI (2016). GRI 101: Foundation.  
<https://www.globalreporting.org/standards/media/1036/gri-101-foundation-2016.pdf>

be under-disclosed. To assess the adherence to the WEF metrics, we next assessed whether, to what extent, and how the top 200 companies on the 2020 Fortune 500 list reported the information responsive to the WEF metrics. Thirteen of the Fortune 200 companies were not publicly listed companies, due to them either having been delisted or the company being a privately held entity and were removed from our analysis.

For each of the 74 sub-metrics, each company received either a “0%” score for no disclosure, a “50%” score for providing disclosures that were partially responsive to a sub-metric, or a “100%” score for having disclosures that fully responded to a sub-metric. Scoring a company's disclosures as missing, 0%, or complete, 100%, was relatively straightforward as the 74 sub-metrics narrowed the scope of the WEF core metrics to small, more identifiable, items. For companies that disclosed data responsive to a portion of a sub-metric, but not completely, our approach of assigning a “50%” acknowledges the company did disclose something while removing any inconsistencies that might arise between the individuals assigning the scores if a more continuous scale was used. More information on how the data was collected is provided in Appendix B.

An average disclosure percentage for each company was calculated for each of the 21 WEF core metrics using the sub-metrics that corresponded to each core metric. The average disclosure percentages for each core metric for a given company was then used to calculate an average disclosure percentage for each of the four pillars, Governance, Planet, People, and Prosperity. The mean of these four pillar percentages was used to calculate an overall percentage of disclosure for each company. More details on the aggregation approach can be found in Appendix B. This approach to generating aggregate disclosure percentages gives equal weighting to each core metric within its pillar and gives equal weight to each of the pillars in calculating an overall disclosure percentage.

Because of the compound nature of the WEF core metrics, we assessed compliance of the WEF metrics with the IMPACT framework using our breakdown of the 74 sub-metrics. Each of the 74 sub-metrics was evaluated against the six impact criteria and received either a 0 if it did not meet the criteria and a 1 if it did. Using the 74 sub-metrics and our IMPACT framework, each individual team member rated each sub-metric as to whether or not each IMPACT aspect was met. The team then compared their individual results discussing discrepancies until a consensus was met.

### **A. Data Description**

From the data, two significant trends emerged signaling room for improvement in the WEF metrics. First, no companies reported all the information requested by the 21-core metrics, and only a handful of metrics have reporting rates across companies of greater than 90%. Second, the disclosures that did align with the WEF metrics often proved difficult to compare among organizations.

#### *1. In general, organizations are reporting less than half of the information proposed by the WEF*

We found on average the Fortune 200 companies report on just under 50% of the metrics (49.3%). The average is somewhat skewed by the 6 outlying companies that report on 10% or less of the metrics; however, only 3 companies report on more than 70% of the metrics. For example, Bank of America, even though it participated in the development of the WEF metrics, only reports on 56.8% of the metrics. Of the 187 companies, the mean disclosure percentage is 49.3%, the median disclosure percentage was 52.3%, and the standard deviation was 12.8%.

The Fortune 200 comprise eleven sectors (as identified by the Global Industry Classification Standard). As can be seen in Figure 1, even evaluated on a sector-by-sector basis, the sectors themselves do not exhibit large discrepancies in reporting values. The range of reporting for most

sectors falls between 20% and 60%. Consumer Discretionary is the only sector where the bottom of the interquartile range falls below 35% and similarly, only the Information Technology sector has an interquartile range that exceeds 60%. Of eleven sectors represented, seven sectors have more than 15 companies on the Fortune 200 list, and these account for 163 companies. The levels of reporting in these top seven sectors (Consumer Discretionary, Consumer Staples, Energy, Financials, Healthcare, Industrials, and Information Technology) slightly narrow the percentages of reporting.

When broken down by pillar, as seen in the boxplot in Figure 2, we observe larger percentages of disclosures in the Governance pillar (mean disclosure 69.9%) and the Prosperity pillar (mean disclosure 55.5%), followed by the Planet pillar (mean disclosure 43.7%). The People pillar obtains lower disclosure scores (mean disclosure 28.2%). The utility sector leads in the Planet pillar with utilities disclosing about 68.2%, likely due to higher regulatory disclosure requirements. It is also one of the highest in the Governance pillar (mean disclosure 73.55%).

We find that 54.7% of the information is disclosed on Corporate Sustainability Reports or Corporate websites, 34.4% on SEC filings and 10.9% through the Carbon Disclosure Project (see Figure 2). Interestingly, these percentages vary depending on each pillar. For example, 100% of the disclosure on the People pillar comes from Corporate Sustainability Reports or Corporate websites, while the percentage drops to 73.8% for the Planet pillar, and 68.5% for the Governance Pillar. It is not surprising that 90% of the disclosure of the Prosperity Pillar is found via SEC filings.

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[Insert Figure 1, 2, 3 and 4 about HERE]

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While the sustainability disclosures we evaluated for alignment with the WEF metrics were not in response to a request to disclosure to the WEF framework, they still provide insight into the universality of the WEF metrics because the WEF metrics were explicitly crafted to reflect what companies are generally already reporting. Our analysis revealed less than half of the information requested by the WEF was generally reported among the Fortune 200 companies. Furthermore, some of the metrics that might be considered as important and commonly disclosed are not included. This is for example, the case for energy consumption and solid waste, which have been shown to be among the most reported among environmental metrics by firms of the S&P 500 (Li et al., 2020).<sup>43</sup>

When broken into 74 subparts, 23 of the sub-metrics have less than 25% of companies fully or partially reporting, 10 have between 25 and 50% of companies fully or partially reporting, 15 have between 50% and 75% of companies fully or partially reporting, and only 26 have more than 75% of companies fully or partially reporting. In general, even among the Fortune 200 organizations approximately half of the information requested by the WEF metrics is not reported.

## *2. Disclosures responsive to the WEF requests often lack utility*

Even for those metrics with high levels of reporting, the utility of the responses is questionable.<sup>44</sup> For example, the metric with the highest level of compliance (98%) asks whether the company has a stated purpose linked

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<sup>43</sup> Li, J.M., Lu, S., & Nassar, S. (2020) Corporate Social Responsibility Metrics in S&P 500 Firms' Sustainability Reports. Chicago Booth Rustandy Center for Social Sector Innovation. [https://www.chicagobooth.edu/-/media/research/sei/docs/csr-metrics-rustandy-center-report\\_final.pdf](https://www.chicagobooth.edu/-/media/research/sei/docs/csr-metrics-rustandy-center-report_final.pdf)

<sup>44</sup> The metrics with the highest levels of reporting, where more than 75% of the companies provided responses deemed to completely or partially respond to the metric, include requests for (1) descriptions of the internal and external mechanisms for seeking advice about ethical and lawful behavior and reporting unethical and unlawful behavior; (2) information regarding the composition of the governing board of the company; (3) the company's setting purpose; (4) the percentage of women employees; (5) an explanation of how the organization facilitates workers' access to non-occupational medical and healthcare services and scope of access; (6) portions of the TCFD disclosures; and (7) Scope 1 and 2 greenhouse gas emissions.

to societal benefit and their core business (“setting purpose”). A “mission” or “setting purpose” is nearly universal for any company at this point, and the high level of reporting here provides little insight. Similarly, those metrics seeking information about a company’s governing board makeup and qualifications have similarly high compliance. While many of these metrics can provide insight into a company’s values, such as percentages of women and minorities on the board, this represents information already commonly reported and sometimes legally required. Similarly, the responses across companies to the metrics seeking information about ethics advice and reporting mechanisms have response rates of 93%; however, the actual responses provided by most companies are formulaic, generally stating that they have a website and a hotline. As with metrics related to board composition, these metrics provide little insight into sustainability at the company.

At first glance, many of the metrics seek information that is legally mandated to be reported elsewhere or are phrased in such a way that many types of responses could qualify, reducing the comparability of the resulting disclosures. An inability to use reported data to compare companies’ progress may significantly decrease the utility of the data and the value of the WEF metrics.

## **B. Analysis of the WEF Metrics using IMPACT**

Our goal in the analysis is to assess the WEF metrics with the IMPACT framework in order to provide recommendations for improvement. We evaluate the set of WEF metrics using the IMPACT framework and then describe how firms within the Fortune 200 firms actually disclose these metrics and illustrate our arguments with specific examples. Each of the WEF metrics consists of multiple subparts that can each be regarded as a metric on their own. While some sub-metrics align with the IMPACT criteria, others do not. To ensure clarity of our analysis, we evaluated each

of the sub-metrics to determine whether they aligned with the IMPACT criteria. Details about our evaluation are provided in Appendix C.

### *1. Important*

Many of the WEF Metrics are grounded in well-established reporting frameworks, like GRI, that address issues integral to sustainability. By our rating, 89.19% of the WEF framework satisfy the *Important* criteria. However, several metrics fail to meet the *Important* criteria, including Setting Purpose, and Total R&D expenses (\$) and sub-metrics within Integrating Risk and Opportunity into Business Process, Wage Level (%), and Financial Investment Contribution. For some, like “Setting Purpose,” it is the entirety of the core metric that fails to meet the Important criteria. For that metric, WEF requests that organizations disclose “The company’s stated purpose, as the expression of the means by which a business proposes solutions to economic, environmental and social issues. Corporate purpose should create value for all stakeholders, including shareholders.” While nearly every company disclosed on this metric, the existence of a company’s mission statement does not provide meaningful insight into whether that mission statement is related to the company’s efforts to improve sustainability. For example, responses to the WEF’s Setting Purpose metric include from ExxonMobil, “ExxonMobil is committed to producing the energy and chemical products that are essential to modern life and economic development, in a way that helps protect people, the environment and the communities where we operate. This includes mitigating the risks of climate change;” from General Electric, “We rise to the challenge of building a world that works”; and Facebook, “Facebook’s mission is to give people the power to build community and bring the world closer together. People use Facebook to stay connected with friends and family, to discover what’s going on in the world, and to share and express what matters to them.” While the WEF states that this metric traces back to the GRI, among other sources, the WEF has modified the GRI’s standard to



remove the portions of the GRI standard that would have provided insight into whether a company's mission statement was an indicator of commitment to sustainability. As articulated by the GRI, the corresponding metric seeks the roles of the governing body in developing, approving, and updating the company's purpose as it relates to ESG issues. Such a metric conveys information regarding the involvement and commitment of the governing body in incorporating and implementing a mission statement in relation to ESG topics; no similar information is conveyed in the WEF's modified version, stripping it of any *Important* attributes.

For other metrics, like Wage Level (%), some sub-metrics do not satisfy the *Important* criteria, namely, the sub-metrics requesting the ratio of annual total CEO compensation to the median of the annual total compensation of its employees. This sub-metrics does not trace to an existing sustainability framework, thus receiving a 0.

While many of the WEF metrics meet the *Important* criteria, it should be noted that they do not necessarily cover the full breadth of important issues. For example, waste and supply chain issues are not included in the core set of planetary metrics, despite the centrality of these issues to sustainability.

## 2. *Measurable*

Many of the WEF's metrics do not provide the necessary details to ensure the metrics are measurable. The rating of the WEF framework for *Measurable* is 63.51%. Several variables lacked measurability, these include Setting Purpose and Risk for Incidents of Child, Forced, or Compulsory Labor, and sub-metrics within Governance Body Composition, Anti-corruption, Protected Ethics and Advice Reporting Mechanisms, Integrating Risk and Opportunity into Business Process, TCFD Implementation, Diversity and Inclusion (%), Pay Equality (%), Health and Safety, Training Provided, Absolute Number and Rate of Employment, and Economic

Contribution. Of these, both Setting Purpose and Risks for Incidents of Child, Forced, or Compulsory Labor are not measurable as a whole or in part. There are no established standards by which a Setting Purpose can be measured. Similarly, Risks for Incidents of Child, Forced or Compulsory Labor seeks explanations related to the types of operations that have these risks based on the operation type, supplier type, and geography, but provides no standards by which to analyze these questions.

For the remaining metrics identified above, each of them contains multiple subparts where some sub-metrics meet the *Measurable* criteria, but others do not. For example, while many of the sub-metrics related to Governance Body Composition are measurable (like the “Ratio of executive to non-executive members,” or “Tenure on the governance body”), a few are not, including “Competencies related to economic, social and environmental topics,” and “Percent of underrepresented social groups.” For both of these, it is a lack of standards for evaluating the topic that create the lack of measurability. The WEF defines “under-represented social groups as a “[p]opulation that, relative to its numbers in a given society, has less opportunity to express its economic, social, or political needs and views.” However, this metric is inherently vague and potentially will be defined and evaluated differently by every company, making the resulting disclosures less useful for stakeholders. It could reasonably be interpreted to include ethnic, religious, gender, or political differences, and while WEF suggests that “it is important to consider racial and ethnic diversity,” it provides no mandate that these be included or insight into what other aspects should be. Further, this metric ignores the fact that for multinational organizations, what constitutes an underrepresented racial or ethnic group may vary by locations of operation. The WEF does not provide any guidance regarding how to account for these ambiguities.

Similarly, one sub-metric of Pay Equality (%) requests pay information by employee category in significant locations of operation between major and

minor ethnic groups. Only 14% of companies provided information completely responsive to this request. No definitions of “employee category,” “ethnic group,” or “significant locations of operations” are provided. The WEF points users to the GRI standards (405) for assistance in responding to this; however, while this does define “employee category” to be a “breakdown of employees by level (such as senior management, middle management) and function (such as technical, administrative, production)” and notes that “[t]his information is derived from the organization’s own human resources system,” the result is that responsive data will mirror the variances in job titles across all organizations. Even less direction is provided to companies attempting to understand and define major and minor ethnic groups. Instead, the WEF essentially asks companies to invent a means of doing this, directing companies to “adopt a methodology similar to GRI 405-2, focusing on ethnic groups. The major and minor ethnic groups would be based on the significant locations of the organizations’ operations.” GRI 405, referenced by the WEF, states that it is the company who must define what locations are significant. Taken together, the lack of definitions in this metric ensure that the resulting responses will be particularized to each company, again demonstrating that a lack of defined data collection and reporting standards may result in low comparability of responsive data.

This lack of guidance also explains the failure of metrics like Absolute Number and Rate of Employment to meet the measurable criteria. The data requested by this metric can be calculated, but because of the way the metric is articulated, it cannot be calculated in a standardized way that will lead to comparable results, and that is why it fails to meet the *Measurable* criteria. The Absolute Number and Rate of Employment sub-metrics seek information related to employment by age group, gender, and other indicators of diversity. While the metric provides suggested divisions for what constitutes an age group, it does not mandate reporting along those

lines. Our analysis of the companies reporting data found that while some companies report on the suggested breakdown of under 30, 30-50, and over 50, other companies use undefined generational markers like, Baby Boomers, Generation X, Millennials, and Generation Z (Marathon Petroleum); or different age ranges, under 35, 35-54, and 55 or older (BD). Similarly, no guidance is provided regarding what may constitute other indicators of diversity.

Other metrics lack measurability not because they fail to define key terms, but because the vagueness of the request itself permits a wide breadth of responses. For example, 76% of the analyzed companies issued disclosures that would qualify as responsive to the sub-metric seeking an “[e]xplanation of how organization facilitates workers’ access to non-occupational medical and healthcare services and the scope of access provided.” These disclosures generally included superficial information about a company’s wellness programs but provided little insight into whether the company values and supports the health of its employees. For example, Progressive reports that “[w]e offer affordable, comprehensive health and wellness benefits that promote healthy lifestyles for our people and their families. Our offerings include on-site fitness centers, medical clinics, farmers markets, and health seminars at our larger locations. Our Employee Assistance Program provides 24-hour support to help our employees with the demands of work, life, and personal issues” (Progressive, 2019, p. 36).<sup>45</sup> As another example, Macy’s reports that in 2018 they created a “new range of health and wellness programs for eligible team members, including healthcare benefits, paid parental leave, hospital indemnity, paid short-term disability and optional long-term disability benefits, and special programs like pet insurance. We also grant paid time off, offer flexible work and a generous colleague discount” (Macys, 2018, p. 36)<sup>46</sup>. While both Macy’s and Progressive’s disclosures are responsive to the WEF metric, it would be

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<sup>45</sup> Progressive. (2019). Corporate Sustainability Report.

<sup>46</sup> Macy’s. (2018). Sustainability Report.

difficult to compare the two responses. And neither provides robust insight into whether one organization's policies and programs promote greater or better access to healthcare for employees.

Without ensuring metrics provide sufficient details and guidance to ensure that data is collected and presented in a uniform way, the resulting disclosures will not prove useful to a stakeholder seeking to use them to compare performance among organizations.

### 3. *Precise*

One of the most concerning issues with the WEF's presentation of its 21 core metrics is that for nearly all of those 21 metrics, it has identified multiple variables that should be measured and reported to provide insight into that particular aspect of the organization's sustainability performance. However, it fails to provide any process for an organization or stakeholder to aggregate those variables in order to understand how the company is performing in that area, leaving a stakeholder with little ability to compare results. This lack of *Precision* is a primary area in need of improvement in the WEF metrics.

Nonetheless, if we were to evaluate the 74 sub-metrics individually, about 82.43% meet the *Precise* criteria. The reason why some of the metrics fail to qualify as *Precise* is because they present multiple indicators to measure each aspect of sustainability operations or seek information on vague categories without identifying a specific variable to use. However, this high reporting percentage does not necessarily imply that the lack of compliance with the *Precision* criteria can be remedied simply by separating the metrics into their subparts. The WEF's inclusion of sub-metrics within each of the 21 core metrics implies that each of the sub-metrics is necessary to understand performance on the topic of the core metric with which it corresponds. Disaggregation does not account for how these sub-metrics relate to one another and interact to provide insight into the core metric.

Simply providing an end user with disclosures on the various sub-metrics for each core metric does not inform the stakeholder of how to combine this data to obtain an accurate picture of performance on the core metric. Without providing either a composite indicator created from the sub-metrics or a means of aggregating the sub-metrics in a way that produces the insight the core metric is meant to provide, the proposed WEF metrics cannot meet the *Precise* criteria.

An illustrative example is the core metric “Governance Body Composition” that consists of eight sub-metrics including percentage of women on the Board and percentage of independent Board members. For these, as of 2019, Alphabet reports that its board is 27% women and 72% independent.<sup>47</sup> While these disclosures are informative, it would be difficult to evaluate whether the Governance Body Composition metric is indicative of sustainable practices at Alphabet; on the one hand, it has a low percentage of women, but also does exhibit significant independence of Board members. Without a way to reconcile these sub-metrics, it is difficult to draw any conclusions regarding whether the Governance Body Composition metric here indicates sustainability.

Similarly problematic is “Integrating Risk and Opportunity into Business Process” that requests “Company risk factor and opportunity disclosures that clearly identify the principal material risk and opportunities facing the company specifically (as opposed to generic sector risks), the company appetite in respect of these risks, how these risks and opportunities have moved over time and the responses to those changes. These opportunities and risks should integrate material economic, environmental and social issues, including climate change and data stewardship.” Much of this information is not quantifiable, and the sheer volume of information

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<sup>47</sup> Alphabet Inc. (2020). 2020 Schedule 14 A Proxy Statement Pursuant to Section 14(A) of the Securities Exchange Act of 1934. [https://www.sec.gov/Archives/edgar/data/1652044/000130817920000203/lgoog2020\\_def14a.htm](https://www.sec.gov/Archives/edgar/data/1652044/000130817920000203/lgoog2020_def14a.htm)

requested in this single metric will create confusion for a stakeholder seeking to interpret the response or compare it among companies.

Of the 21 core WEF metrics, the ones qualifying as *Precise* include “Land Use and Ecological Sensitivity,” “Total R&D Expenses (\$),” and “Total Tax Paid.” Each of these identifies a variable that can be measured and presented as a means to evaluate the phenomena at interest. Land Use and Ecological Sensitivity seeks information on the number and area (in hectares) of sites owned, leased, or managed in or adjacent to protected areas or key biodiversity areas. Similarly, Total R&D Expenses and Total Tax Paid each seek measurement of a single identifiable variable as a means of evaluating these dimensions of Prosperity.

#### 4. *Accountable*

None of the WEF metrics or their subparts explicitly request any information regarding whether the reported data and disclosures have been verified or assessed by a third-party, although a number of the Prosperity and Principles of Governance metrics overlap with federal financial reporting requirements, thus providing some assurance of reliability and internal controls. However, for the majority of the WEF metrics, there is no request that an organization provide any information to support the accuracy of its responses. This absence is particularly noticeable for the sub-metrics requesting Scope 1, 2, and 3 greenhouse gas emissions, an area where third-party verification is common.

In addition to third-party assessment, metrics should also request information detailing whether there are internal controls in place and what they are to aid in assessing the accuracy of the collection and reporting processes for ESG information. Unlike financial disclosures to the SEC that require discussions of internal controls<sup>48</sup>, no similar documentation is incorporated in the WEF framework related to ESG disclosures, despite the fact that these may, in part, be used to evaluate investment decisions.

<sup>48</sup> Sarbanes-Oxley Act, 15 U.S.C. § 7262. (2002).

Requesting that companies identify and disclose internal controls governing data reported in ESG disclosures can help stakeholders evaluate the accuracy of the information provided.

### 5. *Contextualized*

Because a primary purpose of ESG disclosures is to communicate information regarding the sustainability performance of a company to interested stakeholders, ensuring that stakeholders can understand and interpret the reported information is critical, and *Contextualized* disclosures play a major role in that process. Of the 74 sub-metrics, 77.03% satisfy the *Contextualized* criteria. However, none of the metrics request that the disclosures include an explicit target or goal that could be used to assess an organization's progress and commitment to sustainability.

An illustrative example of a *Contextualized* sub-metric falls within "Water Consumption and Withdrawal in Water-stressed Areas." One sub-metric seeks the percentage of water withdrawn (in megaliters) from regions with high or extremely high baseline water stress, according to the WRI Aqueduct water risk atlas tool. For many stakeholders, reporting the amount of water withdrawn might have little meaning, as they may have no context for whether the reported value represents a significant or insignificant amount of water. However, by including data on whether that water is coming from a water-stressed area, the resulting disclosure can provide insight to a stakeholder as to whether that water withdrawal may be unsustainable. For example, Target reports that 50% of the 10,986 megaliters of water it withdraws comes from areas with high or extremely high baseline water stress according to the WRI Aqueduct water risk atlas tool, thus providing insight into the impact of Target's water withdrawal on water resources.<sup>49</sup>

Other of the WEF metrics lack that contextualization. For example, while the core WEF metric "Greenhouse Gas Emissions" contains sub-metrics

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<sup>49</sup> Target Sustainability Report



seeking disclosures of Scope 1, Scope 2, and where appropriate Scope 3 emissions, no context is provided to interpret the responses. These metrics would benefit from a comparison of the greenhouse gas emissions of the present year with prior years or to a future goal to allow a stakeholder to evaluate whether the organization is moving in a sustainable direction.

Because the WEF metrics do not explicitly request that goals and targets be reported, few of the metrics request information on progress towards goals. Such a change would provide insight not only to stakeholders, but also to those internal to the organization seeking to drive progress.

## *6. Time-Bound*

Sustainability metrics should encourage organizations to report data in a timely manner. While the majority of the WEF sub-metrics do not explicitly discuss the relevant time frame that should be used to report the data, it can be inferred from the phrasing that current data should be used to respond when a sub-metric seeks, for example, the ratio of the basic salary and remuneration for each employee category by women to men from the core “Pay Equality (%)” metric. Nonetheless, in practice, there is a potential for stale data to be reported, as the most recent data an organization has may not correspond to the current period. One example, “Material issues impacting stakeholders” requests a list of material topics be disclosed. Because not every organization evaluates this annually, the disclosure may not reflect the current state, as is the case with the materiality assessment presented in MetLife’s 2019 report that from 2017.<sup>50</sup> Ensuring data is collected and reported in a timely manner allows stakeholders to better understand the current state of sustainability operations at a company, and timely data is necessary to meaningfully assess company progress over time. In our theoretical assessment, the WEF metrics score highly on the Time-Bound criteria, but in practice, there remains room for misapplication.

<sup>50</sup> MetLife 2019 Sustainability Report, p. 97.

Thus metrics could be improved by explicitly asking companies to disclose the time to which data pertains when it is reported for a year other than the current year. However, ensuring the timely collection and reporting of data may be an excellent place for regulators to enter the arena.

## 7. *Summary*

In conclusion, many of the apparent issues with the WEF metrics could be improved by ensuring that each metric has IMPACT, which would require revisions to the metrics' current articulations. While the 21 core WEF metrics in general meet the *Important* criteria, with approximately 89.19% aligning with widely accepted sustainability standards, only 63.51% of the metrics meet the *Measurable* criteria and provide sufficient guidance to ensure that the data is collected and analyzed in a standardized way resulting in comparable responses. Additionally, because the core metrics frequently consist of many sub-metrics with no process for aggregation, nearly all of the WEF metrics should be revised to meet the *Precise* criteria. Similarly, other than those metrics overlapping with federal financial reporting requirements, none of the metrics request any assurances of accuracy necessary to allow the metric to ensure *Accountability* of the data. The metrics fair excellently on *Time-bound* criteria with all of the metrics implicitly requesting that current data should be reported or specifying a time frame. The WEF metrics also fair reasonably well in meeting the *Contextualized* criteria, with approximately 77.03% of the metrics providing some context for the responses to help the reader understand the company's disclosure and effects on society and the environment. However, it should be noted that the WEF metrics do not request data regarding ultimate targets be disclosed, and while many of the metrics contain other means for contextualizing the disclosures, revising the metrics to request declarations of targets would significantly increase the ability of stakeholders to understand the resulting disclosures and evaluate the impact of an organization's operations.

Many of the WEF metrics do not meet the IMPACT criteria, and it reduces the utility of the resulting disclosures to both the organization seeking to drive progress and stakeholders seeking to assess firm performance against prior years and other organizations. However, revisions to incorporate IMPACT into each metric may streamline the reporting and result in easy-to-understand disclosures for stakeholders and foster the creation of and progress toward organizational sustainability goals.

### **C. Revising the WEF Metrics to have IMPACT can make the metrics easier to use by organizations**

The WEF metrics are one of many ESG reporting frameworks companies can choose from to guide their reporting. However, overlaying the WEF metrics against the sustainability reports and other public disclosures of the Fortune 200 publicly traded companies reveals that aspects of the metrics themselves may reduce their usability. Additionally, the metrics that lack certain characteristics may ultimately prove difficult for companies to use and result in data that provides little insight into progress towards sustainability. The IMPACT framework provides a means to assess which metrics can and should be adjusted to increase uptake by organizations and maximize the utility of the resulting disclosures. Using IMPACT-ful metrics may also enhance the ability to compare a single firm's performance over time and discern trends, which can serve as the foundation for continuing to improve sustainability operations and goals.

Indicators and metrics are the backbone of sustainability disclosures, but if organizations are left without sufficient guidance on how to measure and report on metrics, it creates an obstacle to their use. Further, if every organization must create its own protocol, there will be little ability to compare the resulting responses; an apples-to-apples comparison will be impossible, thus undermining the goal of effectively communicating sustainability performance in a useful way to stakeholders.

It should, nonetheless, be noted that even if a perfect metric existed, its effectiveness would still depend on the willingness of organizations to implement it and their skill at doing so. Our analysis of public sustainability disclosures further demonstrates the current state of discord among responses even when covering the same topic. Improving metrics to align with the IMPACT criteria can contribute to solving this discord but reporting under the existing frameworks remains voluntary and thus open to substantial interpretation by organizations. Ultimately, it may require the intervention by the regulatory sphere to mandate that data be collected and reported in a standardized way.

## **V. CONCLUSION**

Given the current lack of standardization in the sustainability reporting landscape, the WEF's attempt to drive progress towards a set of universal standards is admirable. However, our analysis reveals that only around half of the data requested in the WEF metrics is reported. Moreover, the present articulation of the metrics will likely create difficulties for adoption and use.

The WEF metrics can be improved by applying the IMPACT framework to ensure that the requested disclosures are *Important, Measurable, Precise, Accountable, Contextualized, and Time-Bound*. Without these hallmarks, sustainability metrics will prove difficult to analyze and report on for companies, and the resulting disclosures will have lower utility due to the lack of comparability among organizations. Revising the WEF (or any other set of sustainability) metrics to meet the IMPACT criteria will ensure that the resources an organization commits to producing its sustainability disclosures are well-used and ultimately result in increasing the value of their disclosures to their stakeholders.

IMPACT has a unique emphasis on ensuring metrics can be used for comparisons by stakeholders across organizations and by organizations for

setting and evaluating progress towards goals ensures. IMPACT provides a framework for ensuring the indicators chosen (regardless of substantive topic) have the necessary qualities to be valuable to both the reporting companies and the interested stakeholders. However, further research is needed to address whether the substantive topics covered by the WEF metrics are sufficient to provide a robust picture of an organization's sustainability, particularly insofar as the WEF core metrics generally do not consider supply chain operations, and whether the indicators selected appropriately represent the substantive topic of interest.

**Table 1** Impact Brief Definitions

<b>Important</b>	Metrics request data that is integral to sustainability progress.
<b>Measurable</b>	Metrics explicitly define terms and units and rely on or provide a standardized process for collecting and reporting data.
<b>Precise</b>	Metrics identify the single quantifiable variable that provides information about the relevant aspect of company operation.
<b>Accountable</b>	Metrics request indicia of reliability for the reported data, including third-party verification where appropriate. Metrics should request companies indicate whether internal controls are present governing the collection and reporting of data.
<b>Contextualized</b>	Metrics request data be reported in a way that makes it understandable to stakeholders, including by reporting multiple years of data and stating goals or targets along with timelines for achievement and, where necessary, adjustments to prior timelines.
<b>Time-Bound</b>	Metrics request organizations report current data or where older data is likely to be used, request organizations explicitly state the timeframe covered by the reported data.

**Figure 1 - Box Plot of Reporting Percentages by Sector**

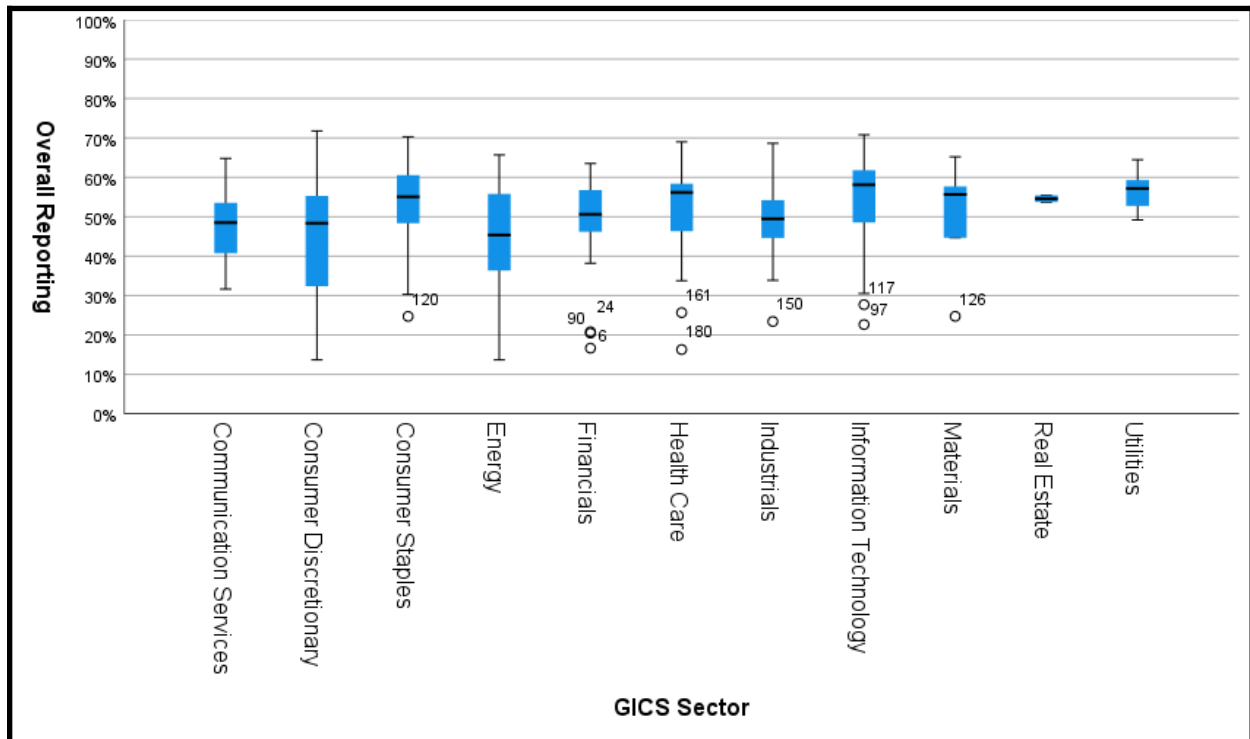
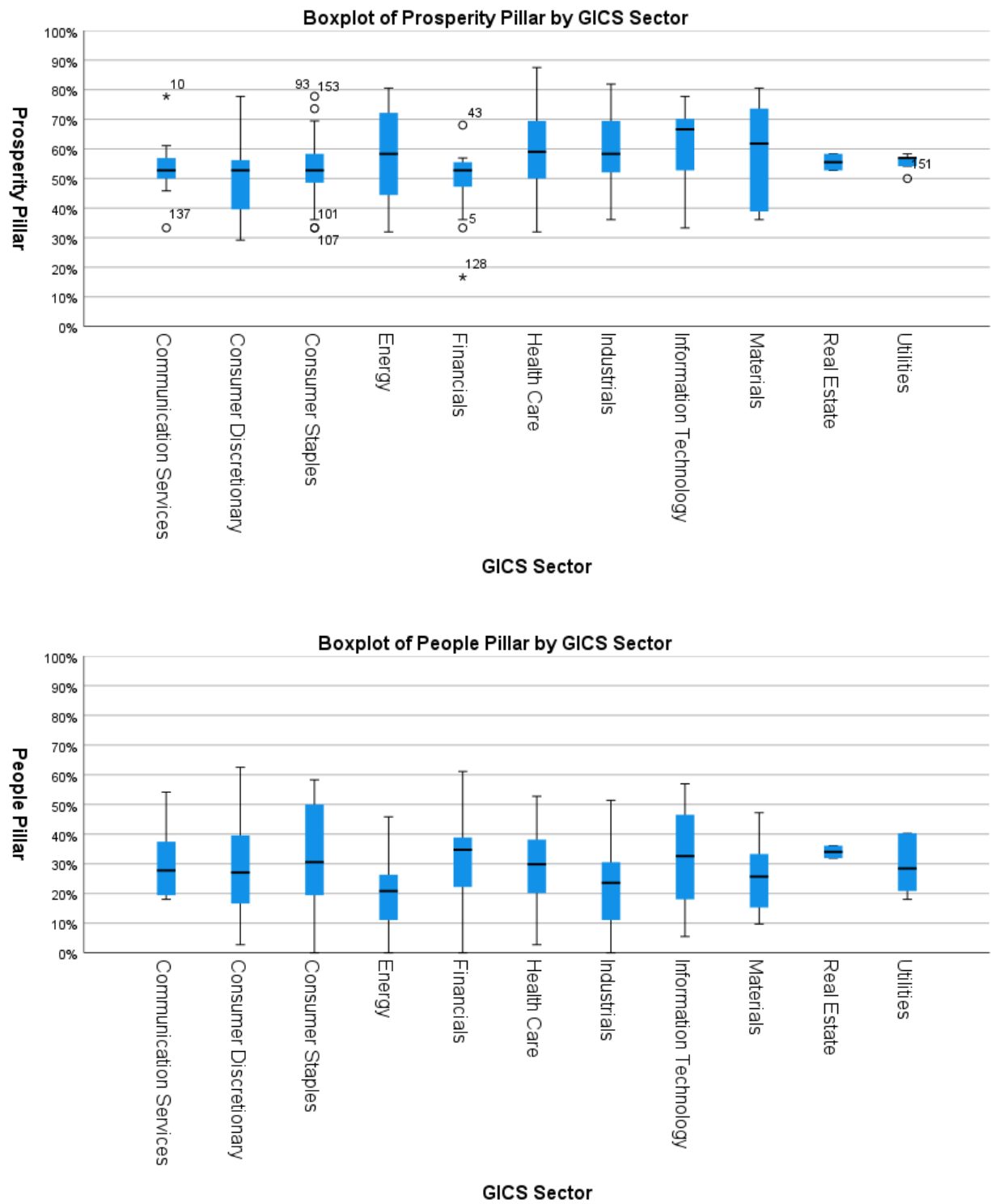
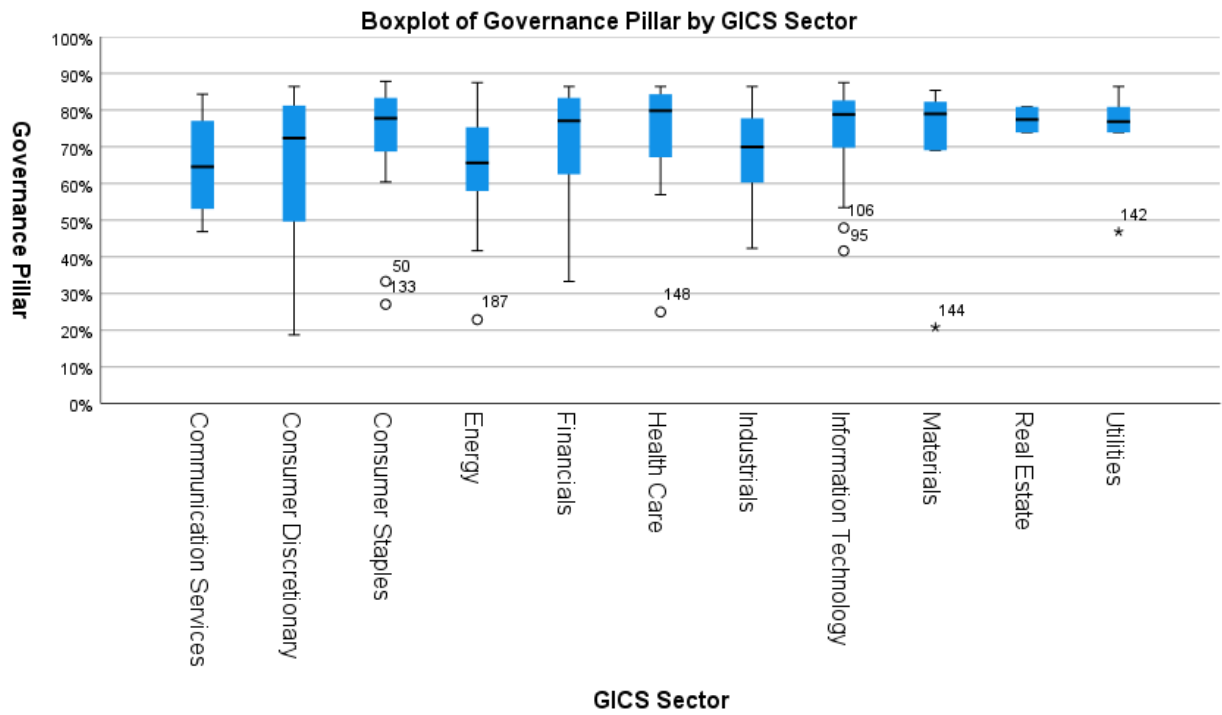
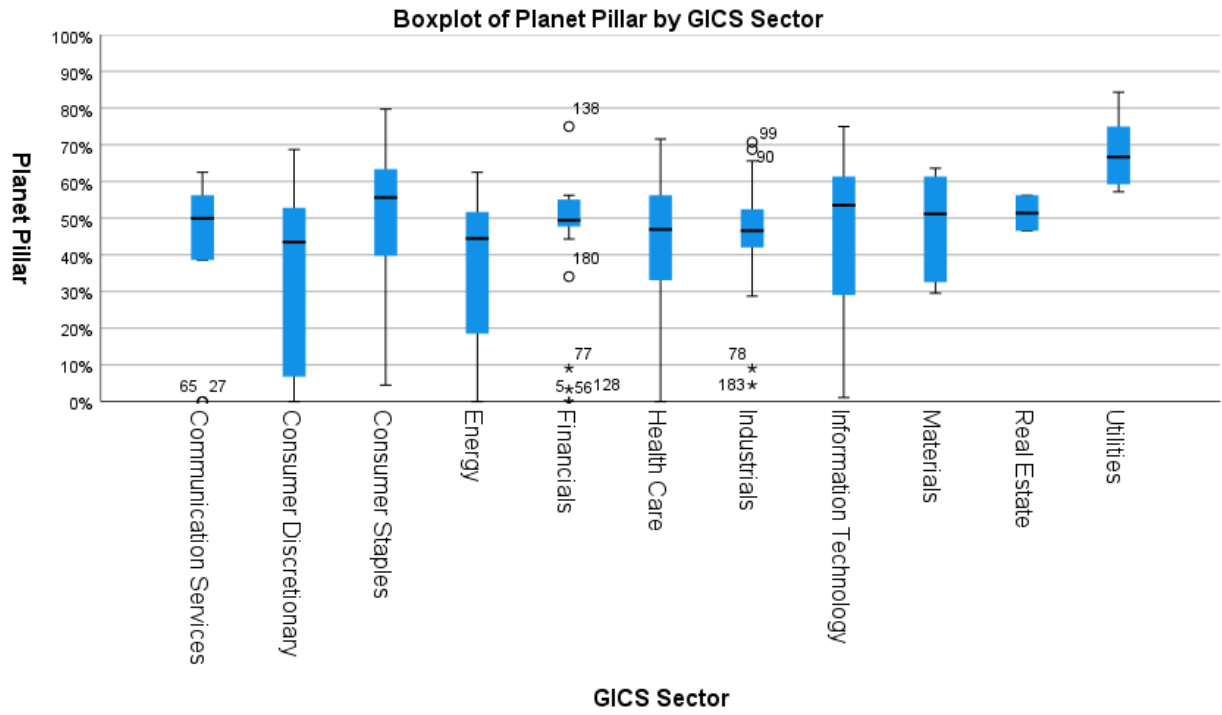


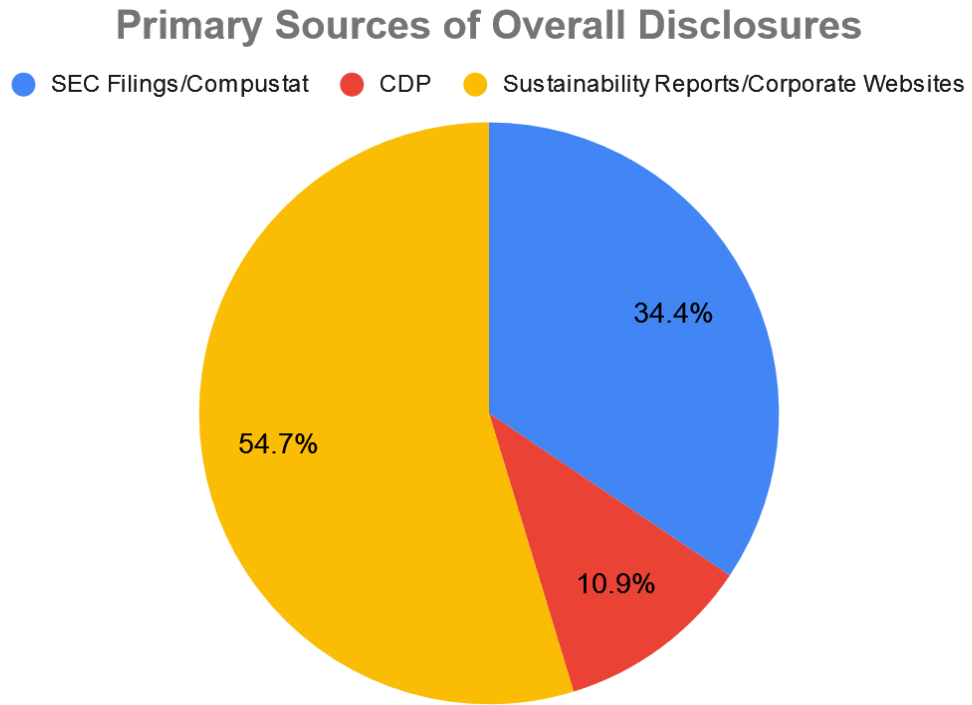
Figure 2: Disclosure by Pillar



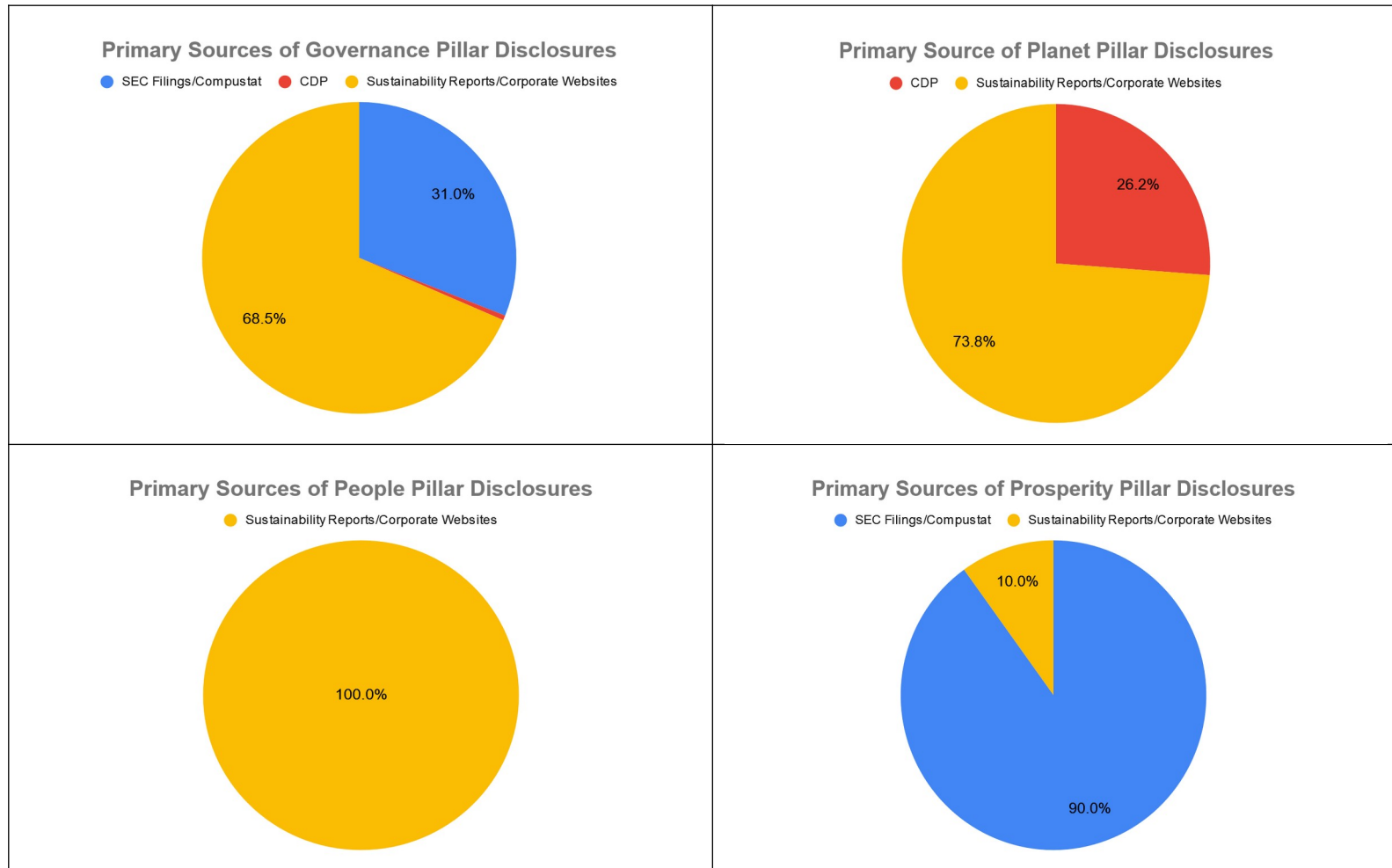




**Figure 3. Primary Sources of Disclosures**



**Figure 4 Sources of Disclosures by Pillar**



APPENDIX A LIST OF 22 METRICS IN WEF DATABASE AND SUBSET METRICS  
DEVELOPED FOR THE ANALYSIS.

WEF Pillar	WEF Themes	Core Metrics	Sub-Metrics
Governance	Governing Purpose	Setting Purpose	Setting Purpose
	Quality of Governing Body	Governance Body Composition	Governance Body Composition: Competencies related to economic, environmental and social topics
			Governance Body Composition: Executive/Non-executive members
			Governance Body Composition: Percent Independent
			Governance Body Composition: Tenure on the governance body
			Governance Body Composition: Number of each member's other significant positions and commitments and nature of those commitments
			Governance Body Composition: Percent Women
			Governance Body Composition: Percent of underrepresented social groups
			Governance Body Composition: Stakeholder representation
	Stakeholder Engagement	Material Issues Impacting Stakeholders	Material issues impacting Stakeholders
	Ethical Behavior	Anti-Corruption	Anti-corruption: Total percentage of governance body members, employees and business partners who have received training on the organization's anti-corruption policies and procedures, broken down by region.
			Anti-corruption: Total number and nature of incidents of corruption confirmed during the current year, but related to previous years
			Anti-corruption: Total number and nature of incidents of corruption confirmed during the current year, related to this year
			Anti-corruption: Discussion of initiatives and stakeholder engagement to improve the broader operating environment and culture, in order to combat corruption
		Protected Ethics Advice and	Protected Ethics Advice and Reporting Mechanisms: Description of internal and

WEF Pillar	WEF Themes	Core Metrics	Sub-Metrics
Planet		Reporting Mechanisms	external mechanisms for seeking advice about ethical and lawful behavior and organizational integrity
			Protected Ethics Advice and Reporting Mechanisms: A description of internal and external mechanisms for reporting concerns about unethical or unlawful behavior and lack of organizational integrity
	Risk and Opportunity Oversight	Integrating Risk and Opportunity into Business Process	Integrating risk and opportunity into business process: Disclosures that clearly identify the principal risks and opportunities facing the company specifically (as opposed to sector risks)
			Integrating risk and opportunity into business process: Disclosures that clearly identify the company appetite in respect of these risks
			Integrating risk and opportunity into business process: Disclosures that clearly identify how the risks and opportunities have moved over time and the responses to those changes.
Planet	Climate Change	Greenhouse Gas Emissions	GHG Emissions: Scope 1
			GHG Emissions: Scope 2
			GHG Emissions: Scope 3
		TDCF Implementation	TCFD Implementation: Describe the organization's governance around climate related risks and opportunities
			TCFD Implementation: Describe management's role in assessing and managing climate-related risks and opportunities
			TCFD Implementation: Describe the climate related risks and opportunities identified over the short, medium and long term
			TCFD Implementation: Describe the impact of climate-related risks and opportunities on the organization's business strategy and financial planning
			TCFD Implementation: Describe the resilience of the org's strategy taking into consideration different climate-related scenarios, including a 2-degree C or lower scenario
			TCFD Implementation: Describe the org's process for identifying and assessing

WEF Pillar	WEF Themes	Core Metrics	Sub-Metrics
			climate-related risks
			TCFD Implementation: Describe the org's process for managing climate related risks
			TCFD Implementation: Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the org's overall risk management
			TCFD Implementation: Disclose the metrics used by the org to assess climate-related risks and opportunities in line with its strategy and risk management process.
			TCFD Implementation: Disclose Scope 1, Scope 2, and if appropriate, Scope 3 GHG emissions and related risks
			TCFD Implementation: Describe the targets used by the org to manage climate related risks and opportunities and performance against target
	Nature Loss	Land Use and Ecological Sensitivity	Land use and ecological sensitivity: Report the number and area in hectares of sites owned, leased or managed in or adjacent to protected areas or key biodiversity areas
	Fresh Water Availability	Water Consumption and Withdrawal in Water-Stressed Areas	Water Use: megaliters or water withdrawn
			Water Use: % of water withdrawn from high or extremely high baseline water stress according to WRI aqueduct water risk tool
			Water Use: Megaliters of water consumed
			Water Use: % of water consumed from high or extremely high baseline water stress according to WRI aqueduct water risk tool
People	Dignity and Equality	Diversity and Inclusion	Diversity and Inclusion: % Employees by age group
			Diversity and Inclusion: % women employees
			Diversity and Inclusion: % employees by ethnicity
		Pay Equality	Pay Equality: Women to Men (by geographic area)
			Pay Equality: Minor to major ethnic groups
		Wage Level	Wage Level: Ratio of standard entry level wage by gender compared to local minimum wage
			Wage Level: Ratio of total compensation of

WEF Pillar	WEF Themes	Core Metrics	Sub-Metrics
			CEO to median employee wage
		Risk for Incidents of Child, Forced or Compulsory Labor	Risks for incidents of child, forced, or compulsory labor: An explanation of the operations and suppliers considered to have significant risk in relation to the type of operation and type of supplier
			Risks for incidents of child, forced, or compulsory labor: An explanation of the operations and suppliers considered to have significant risk in relation to the countries with operations and suppliers considered at risk
	Health and Well Being	Health and Safety	Health and Safety: Number and rate of fatalities as a result of work-related injury
			Health and Safety: Number and rate of high consequence work-related injuries excluding fatalities
			Health and Safety: Number and rate of recordable work-related injuries
			Health and Safety: Main types of work-related injuries
			Health and Safety: Number of hours worked
			Health and Safety: Explanation of how organization facilitates workers' access to on-occupational medical and healthcare services and scope of access provided
	Skills for the Future	Training Provided	Training Provided: Average hours of training per person by gender (total hours of training/total # of employees)
			Training Provided: Average hours of training per person by employee category (total hours of training/total # employees)
			Training Provided: Average training and development expenditure per full time employee (total cost of training/ # of employees)
Prosperity	Wealth Creation and Employment	Absolute Number and Rate of Employment	Absolute number and rate of employment: Total number and rate of new employee hires by age group
			Absolute number and rate of employment: Total number and rate of new employee hires by gender
			Absolute number and rate of employment: Total number and rate of new employee hires by diversity
			Absolute number and rate of employment:

WEF Pillar	WEF Themes	Core Metrics	Sub-Metrics
			Total number and rate of employee turnover by age group
			Absolute number and rate of employment: Total number and rate of employee turnover by gender
			Absolute number and rate of employment: Total number and rate of employee turnover by diversity
		Economic Contribution	Economic Contribution: Revenue
			Economic Contribution: Operating Costs
			Economic Contribution: Employee wages and benefits
			Economic Contribution: Payments to providers of capital
			Economic Contribution: Payments to government
			Economic Contribution: Community Investment
		Financial Investment Contribution	Economic Contribution: Financial Assistance from gov during reporting period
			Financial Investment Contribution: Total capital expenditures minus depreciations, supported by narrative describing company's investment strategy
			Financial Investment Contribution: Share buybacks plus dividend payments, supported by narrative describing company's strategy for returns of capital to shareholders
	Innovation in Better Products and Services	Total R&D Expenses	Total R&D expenses
	Community and Social Vitality	Total Tax Paid	Total tax paid: Global
			Total tax paid: US



## **Appendix B Methodology to collect Firm data to populate the WEF framework**

We gathered information on corporate disclosures from each company's most recent sustainability report. We coded each of the 74 sub-metrics either 0%, 50%, or 100% based on the level of reporting. If no information was found, 0% was recorded. If the sub-metric was entirely reported on, 100% was entered. In the case where a metric was only partially reported, 50% was entered. Examples of partial reporting included (1) reporting only a number or a rate when both were required, (2) reporting only certain demographic data when a specific breakdown was required by the WEF, (3) only reporting aggregated data that included other data not requested by the metric, (4) reporting aggregated data that combined two separate metrics in a way that does not allow the number to be disaggregated into its component parts, (5) reporting data without more detailed context as required by WEF, or (6) reporting data for which the time period the data covered was explicitly outside the reporting year of the data's source.

For metrics that were absent from a company's sustainability report, we then proceeded to look for the absent metrics from other company-published and reported sources. For example, detailed information on the company board of directors could be typically found on the company's own website and greenhouse gas emission information could be found on the Climate Disclosure Project's website. For information commonly reported on annual financial reports, this information was pulled from the Compustat database or the company's Form 10-K filed with the Securities and Exchange Commission using the Form 10-K for the reporting year that most closely aligned with the company's sustainability report. Sources for metric data which could not be directly associated with reporting or disclosure from the company were not used.

A two-stage quality assurance review was conducted once the data collection was complete. First, an individual team member assessed each of the scores for a single sub-metric, ensuring that there was consistency within the sub-metric regarding what was, wasn't, or was partially reported. Second, a random sample of companies was selected and the responses for each of the metrics were evaluated by a different member of the team. Discrepancies in any results were evaluated further by the full team and the responses updated once a consensus was reached. We conducted a final review looking for outliers, both high and low reporting, by looking at both the data for each individual company and the data for each sub-metric. Anomalies re-reviewed for consistency and accuracy.

To aggregate the data from the 74 sub-metrics back to the 21 WEF core metrics, the 4 WEF pillars, and one overall score, averages of the corresponding component metrics were averaged at each level. See Appendix A for the mapping of sub-metrics to core metrics to pillars. The sub-metrics for a given core metric was averaged resulting in a disclosure percentage for the core metric. For example, the core metric of TCFD Implementation was broken down to 11 sub-metrics. All 11 sub-metrics were scored by the team using the 0%, 50%, 100% approach. These 11 scores were then averaged resulting in one score for the TCFD Implementation core metric. Conversely, certain core metrics, such as Setting Purpose and Land Use & Ecological Sensitivity, only had 1 sub-metric therefore no aggregation was needed.

Using the core metric disclosure percentages, an average was taken using all of the core metrics that correspond to a WEF pillar. For example, the Planet Pillar consists of the Greenhouse Gas Emissions, TCFD Implementation, Land Use and Ecological Sensitivity, and Water Consumption and Withdrawal in Water-Stressed Areas core metrics. The mean of these disclosure percentages was used for the overall Planet Pillar

disclosure percentage. Similarly, the mean of the 4 disclosure percentages for each pillar was used to calculate the overall disclosure percentage.

## Appendix C IMPACT Evaluation of WEF framework

	Import ant	Measura ble	Preci se	Accounta ble	Contextual ized	Time- Boun d	Impact Evaluati on
<b>1. Setting Purpose</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	17%
<b>2. Governance Body Composition Overall</b>	<b>1</b>	<b>0.5</b>	<b>.75</b>	<b>0</b>	<b>1</b>	<b>1</b>	71%
2a. Governance Body Composition: Competencies related to economic, environmental and social topics	1	0	0	0	1	1	50%
2b. Governance Body Composition: Executive/Non-executive members	1	1	1	0	1	1	83%
2c. Governance Body Composition: Percent Independent	1	1	1	0	1	1	83%
2d. Governance Body Composition: Tenure on the governance body	1	1	1	0	1	1	83%
2e. Governance Body Composition: Number of each member's other significant positions and commitments and nature of those commitments	1	0	0	0	1	1	50%
2f. Governance Body Composition: Percent Women	1	1	1	0	1	1	83%
2g. Governance Body Composition: Percent of underrepresented social groups	1	0	1	0	1	1	67%
2h. Governance Body Composition: Stakeholder representation	1	0	1	0	1	1	67%
<b>3. Material issues impacting Stakeholders</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	66%
<b>4. Anticorruption (Overall)</b>	<b>0.75</b>	<b>0.75</b>	<b>0.25</b>	<b>0</b>	<b>1</b>	<b>1</b>	62.5%
4a. Anti-corruption: Total percentage of governance body members, employees and business partners who have received training on the organization's anti-corruption policies and procedures, broken down by region.	1	1	1	0	1	1	83%
4b. Anti-corruption: Total number and nature of incidents of corruption confirmed during the current year, but related to previous years	1	1	0	0	1	1	67%
4c. Anti-corruption: Total number and nature of incidents of corruption confirmed during the current year, related to this year	1	1	0	0	1	1	67%
4d. Anti-corruption: Discussion of initiatives and stakeholder engagement to improve the broader operating environment and culture, in order to	0	0	0	0	1	1	33%

	Import ant	Measura ble	Preci se	Accounta ble	Contextual ized	Time- Boun d	Impact Evaluati on
combat corruption							
<b>5. Protected Ethics Advice and Reporting Mechanisms</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	50%
5a. Protected Ethics Advice and Reporting Mechanisms: Description of internal and external mechanisms for seeking advice about ethical and lawful behavior and organizational integrity	1	0	1	0	0	1	50%
5b. Protected Ethics Advice and Reporting Mechanisms: A description of internal and external mechanisms for reporting concerns about unethical or unlawful behavior and lack of organizational integrity	1	0	1	0	0	1	50%
<b>6. Integrating risk and opportunity into business process (overall)</b>	<b>0.33</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>38%</b>
6a. Integrating risk and opportunity into business process: Disclosures that clearly identify the principal risks and opportunities facing the company specifically (as opposed to sector risks)	1	0	0	0	1	1	50%
6b. Integrating risk and opportunity into business process: Disclosures that clearly identify the company appetite in respect of these risks	0	0	0	0	1	1	17%
6c. Integrating risk and opportunity into business process: Disclosures that clearly identify how the risks and opportunities have moved over time and the responses to those changes.	0	0	0	0	1	1	33%
<b>7. GHG Emissions (Overall)</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>67%</b>
7a. GHG Emissions: Scope 1	1	1	1	0	0	1	67%
7b. GHG Emissions: Scope 2	1	1	1	0	0	1	67%
7c. GHG Emissions: Scope 3	1	1	1	0	0	1	67%
<b>8. TCFD Implementation (Overall)</b>	<b>1</b>	<b>0.82</b>	<b>0.91</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>78%</b>
8a. TCFD Implementation: Describe the organization's governance around climate related risks and opportunities	1	1	1	0	1	1	83%
8b. TCFD Implementation: Describe management's role in assessing and managing climate-related risks and opportunities	1	1	1	0	1	1	83%
8c. TCFD Implementation: Describe the climate related risks and opportunities identified over the short, medium and long term	1	1	0	0	1	1	83%

	Import ant	Measura ble	Preci se	Accounta ble	Contextual ized	Time- Boun d	Impact Evaluati on
8d. TCFD Implementation: Describe the impact of climate-related risks and opportunities on the organization's business strategy and financial planning	1	0	1	0	1	1	67%
8e. TCFD Implementation: Describe the resilience of the org's strategy taking into consideration different climate-related scenarios, including a 2 degree C or lower scenario	1	0	1	0	1	1	67%
8f. TCFD Implementation: Describe the org's process for identifying and assessing climate-related risks	1		1	0	1	1	83%
8g. TCFD Implementation: Describe the org's process for managing climate related risks	1	1	1	0	1	1	83%
8h. TCFD Implementation: Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the org's overall risk management	1	1	1	0	1	1	83%
8i. TCFD Implementation: Disclose the metrics used by the org to assess climate-related risks and opportunities in line with its strategy and risk management process.	1	1	1	0	1	1	83%
8j. TCFD Implementation: Disclose Scope 1, Scope 2, and if appropriate, Scope 3 GHG emissions and related risks	1	1	1	0	1	1	83%
8k. TCFD Implementation: Describe the targets used by the org to manage climate related risks and opportunities and performance against target	1	1	1	0	1	1	83%
<b>9. Land use and ecological sensitivity: Report the number and area in hectares of sites owned, leased or managed in or adjacent to protected areas or key biodiversity areas</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>1</b>	83%
<b>10. Water use</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>1</b>	83%
10a. Water Use: megaliters or water withdrawn	1	1	1	0	1	1	83%
10b. Water Use: % of water withdrawn from high or extremely high baseline water stress according to WRI aqueduct water risk tool	1	1	1	0	1	1	83%
10c. Water Use: Megaliters of water consumed	1	1	1	0	1	1	83%
10d. Water Use: % of water consumed from high or extremely high baseline water stress according to WRI aqueduct water risk tool	1	1	1	0	1	1	83%

	Important	Measurable	Precise	Accountable	Contextualized	Time-Bound	Impact Evaluation
<b>11. Diversity and Inclusion (Overall)</b>	<b>1</b>	<b>0.33</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>56%</b>
11a. Diversity and Inclusion: % Employees by age group	1	0	1	0	1	1	50%
11b. Diversity and Inclusion: % women employees	1	1	1	0	1	1	67%
11c. Diversity and Inclusion: % employees by ethnicity	1	0	1	0	1	1	50%
<b>12. Pay Equality (Overall)</b>	<b>1</b>	<b>0.5</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>58%</b>
12a. Pay Equality: Women to Men (by geographic area)	1	1	1	0	1	1	67%
12b. Pay Equality: Minor to major ethnic grounds	1	0	1	0	1	1	50%
<b>12. Wage Level (Overall)</b>	<b>0.5</b>	<b>1</b>	<b>0.5</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>67%</b>
13a. Wage Level: Ratio of standard entry level wage by gender compared to local minimum wage	1	1	1	0	1	1	83%
13b. Wage Level: Ratio of total compensation of CEO to median employee wage	0	1	1	0	1	1	67%
<b>14. Risks for incidents of child, forced, or compulsory labor (Overall)</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>67%</b>
14a. Risks for incidents of child, forced, or compulsory labor: An explanation of the operations and suppliers considered to have significant risk in relation to the type of operation and type of supplier	1	0	1	0	1	1	67%
14b. Risks for incidents of child, forced, or compulsory labor: An explanation of the operations and suppliers considered to have significant risk in relation to the countries with operations and suppliers considered at risk	1	0	1	0	1	1	67%
<b>15. Health and Safety (Overall)</b>	<b>1</b>	<b>0.67</b>	<b>0.83</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>58%</b>
15a. Health and Safety: Number and rate of fatalities as a result of work-related injury	1	1	1	0	1	1	50%
15b. Health and Safety: Number and rate of high consequence work-related injuries excluding fatalities	1	1	1	0	1	1	67%
15c. Health and Safety: Number and rate of recordable work-related injuries	1	1	1	0	1	1	67%
15d. Health and Safety: Main types of work related injuries	1	0	1	0	1	1	50%
15e. Health and Safety: Number of hours worked	1	1	1	0	1	1	67%
15f. Health and Safety: Explanation of how organization facilitates workers' access to on-	1	0	0	0	1	1	33%

	<b>Import ant</b>	<b>Measura ble</b>	<b>Preci se</b>	<b>Accounta ble</b>	<b>Contextual ized</b>	<b>Time- Boun d</b>	<b>Impact Evaluati on</b>
occupational medical and healthcare services and scope of access provided							
<b>16. Training Provided (Overall)</b>	<b>1</b>	<b>0.67</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>78%</b>
16a. Training Provided: Average hours of training per person by gender (total hours of training/total # of employees)	1	1	1	0	1	1	83%
16b. Training Provided: Average hours of training per person by employee category (total hours of training/total # employees)	1	0	1	0	1	1	67%
16c. Training Provided: Average training and development expenditure per full time employee (total cost of training/ # of employees)	1	1	1	0	1	1	83%
<b>17. Absolute number and rate of employment (overall)</b>	<b>1</b>	<b>0.33</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>72%</b>
17a. Absolute number and rate of employment: Total number and rate of new employee hires by age group	1	0	1	0	1	1	67%
17b. Absolute number and rate of employment: Total number and rate of new employee hires by gender	1	1	1	0	1	1	83%
17c. Absolute number and rate of employment: Total number and rate of new employee hires by diversity	1	0	1	0	1	1	67%
17d. Absolute number and rate of employment: Total number and rate of employee turnover by age group	1	0	1	0	1	1	67%
17e. Absolute number and rate of employment: Total number and rate of employee turnover by gender	1	1	1	0	1	1	83%
17f. Absolute number and rate of employment: Total number and rate of employee turnover by diversity	1	0	1	0	1	1	67%
<b>18. Economic Contribution (Overall)</b>	<b>1</b>	<b>0.71</b>	<b>1</b>	<b>1</b>	<b>.14</b>	<b>1</b>	<b>97%</b>
18a. Economic Contribution: Revenue	1	1	1	1	0	1	83%
18b. Economic Contribution: Operating Costs	1	1	1	1	0	1	83%
18c. Economic Contribution: Employee wages and benefits	1	1	1	1	0	1	83%
18d. Economic Contribution: Payments to providers of capital	1	0	1	1	0	1	67%
18e. Economic Contribution: Payments to	1	1	1	1	0	1	83%



	<b>Import ant</b>	<b>Measura ble</b>	<b>Preci se</b>	<b>Accounta ble</b>	<b>Contextual ized</b>	<b>Time- Boun d</b>	<b>Impact Evaluati on</b>
government							
18f. Economic Contribution: Community Investment	1	0	1	0	1	1	67%
18g. Economic Contribution: Financial Assistance from gov during reporting period	1	0	1	0	0	1	67%
<b>19. Financial Investment (Overall)</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>67%</b>
19a. Financial Investment Contribution: Total capital expenditures minus depreciations, supported by narrative describing company's investment strategy	0	1	1	1	0	1	67%
19b. Financial Investment Contribution: Share buybacks plus dividend payments, supported by narrative describing company's strategy for returns of capital to shareholders	0	1	1	1	0	1	67%
<b>20. Total R&amp;D expenses</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>67%</b>
<b>21. Total Tax Paid</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>83%</b>
21a. Total tax paid: Global	1	1	1	1	0	1	83%
21b. Total tax paid: US	1	1	1	1	0	1	83%

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